

## 2.0 HSW EIS Waste Streams and Waste Management Facilities

This section describes:

- the four waste types: low-level waste (LLW), mixed low-level waste (MLLW), transuranic (TRU) waste, and Waste Treatment Plant (WTP) waste<sup>(a)</sup>
- the specific waste streams within the four waste types
- the waste management facilities that are currently being used
- the new or modified facilities that are being evaluated in this HSW EIS.

Additional information on Hanford waste streams and facilities is contained in Appendixes B, C, and D and the Technical Information Document (FH 2003).

### 2.1 Solid Waste Types and Waste Streams Related to the Proposed Action

Historically, solid LLW was disposed of in shallow-land disposal units. In 1970, a U.S. Department of Energy predecessor agency, the U.S. Atomic Energy Commission (AEC), determined that waste containing TRU radionuclides would be managed separately from LLW and stored until an appropriate disposal facility was available. Beginning at that time, the suspect TRU waste was placed into retrievable storage (hence, it is sometimes called “retrievably stored”).

In 1987, DOE directed that radioactive waste containing chemically hazardous components, as identified under the Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901 et seq.), be separated and managed separately from LLW (10 CFR 962.3). This waste, referred to as MLLW, is placed into above ground storage facilities at Hanford until it can be treated and disposed of.

The treatment of the Hanford tank waste as part of the River Protection Project within the WTP will result in several waste streams. Of those waste streams, ILAW and melters are being specifically considered in this EIS.

Each of the four waste types has been further divided into waste streams for analysis in this HSW EIS. For the purposes of this EIS, a waste stream is defined as waste with physical and chemical characteristics that would generally require the same management approach (i.e., using the same storage, treatment, and disposal capabilities). The waste types and waste streams considered within this EIS are shown in Figure 2.1. Brief descriptions of the waste streams are contained in subsequent sections. Information on the volume of waste associated with each stream is provided in Section 3.3.

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(a) The WTP wastes (immobilized low-activity waste and melters) as evaluated are MLLW, but are considered a separate waste type for the discussions in this EIS.